

REMARKS

As a preliminary matter, Applicants provided a substitute Specification which corrects minor grammatical errors. No new matter is added by these amendments.

As a further preliminary matter, Applicants appreciate the Examiner's willingness to conduct interviews on October 26-27, 2009. In the interviews, Applicants clarified the difference between the present invention and the Kim and Kimura references. In particular, Applicants' representatives explained how the combining step of claim 1 occurs within a single frame. The Examiner agreed that this feature distinguished claim 1, and Applicants amended the claim to recite this feature. Independent claim 4 is also amended to define the existence ratio, as suggested by the Examiner.

Claims 1-3, 6 and 82-84 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kim et al. (U.S. Patent No. 7,205,970) in view of Kimura (U.S. Publication No. 2002/0118153A1). In response, Applicants amended claim 1 to clarify the combining step, and respectfully traverse the rejection based on this amendment.

Claim 1 now calls for combining, within a single frame, a higher-luminance pixel driven at a higher luminance than luminance data of an image to be displayed, and a lower-luminance pixel driven at a lower luminance than the luminance data. Support for this feature can be found in FIG. 1B and the related description, which shows a higher luminance pixel 1a and a plurality of lower luminance pixels 1b surrounding the higher luminance pixel. FIGs. 7A and 7B including the related description further provide support for this feature.

Kim is directed to a liquid crystal display for wide viewing angle, and driving method thereof. In the outstanding rejection, it is asserted that Kim teaches the combining step as shown in FIGs. 7A-B, items A-B, and at col. 6, line 66 to col. 7, line 25. However, as discussed by Applicants' representatives in the interview, the cited portion of Kim merely teaches four frames for each temporal frame as one unit as shown in FIG. 7b. In operation, Kim has first and second frames, fifth and sixth frames, etc., driven, such that a gray level voltage A less than a normal gray level voltage (plotted as a broken line in the Figures) is applied to a first gate line of a first data line. Similarly, when third and fourth frames, seventh and eighth frames, etc., are driven, a gray level voltage A higher than the normal gray level voltage is applied to the first gate line of the first data line.

As further specified by Kim, the gray level voltage less than the normal gray level voltage may be a voltage corresponding to gray level data resulting from the subtraction of a first gray level correction value from the input gray level data n from or may be a voltage corresponding to the gray level correction value corresponding to the gray level data. Similarly, the gray level voltage higher than the normal gray level voltage may be a voltage corresponding to gray level data resulting from the addition of a second gray level correction value from the input gray level data n or may be a voltage corresponding to the second gray level correction value corresponding to the gray level data. (See Kim, col. 7, lines 1-25). However, Kim fails to disclose or suggest combining, within a single frame, both a higher-luminance pixel and a lower-luminance pixel that are driven at higher and lower luminances than the luminance data, respectively.

Similarly, Kimura also fails to disclose or suggest this feature of combining, within a single frame, both a higher-luminance pixel and a lower-luminance pixel that are driven at higher and lower luminances, respectively. Kimura is merely cited for teaching an area ratio of the higher-luminance pixel and the lower-luminance pixel. Since independent claims 1, 83 and 84 now recite the above-described feature, withdrawal of the §103(a) rejection of claims 1-3, 6, and 82-84 is respectfully requested.

Claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kim and Kimura in view of Koma (U.S. Patent No. 7,133,101). Applicants traverse the rejection for the reasons recited above with respect to the rejection of independent claim 1.

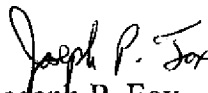
The deficiencies of Kim and Kimura are discussed above. Koma is merely cited for teaching a liquid crystal having negative dielectric anisotropy and being in a vertical alignment under no application of voltage. However, Koma fails to disclose or suggest combining, within a single frame, a higher-luminance pixel driving at a higher luminance than luminance data of an image to be displayed, and a lower-luminance pixel, which is a pixel that is driven at a lower luminance than the luminance data. Accordingly, any combination of Kim, Kimura and Koma is deficient regarding this feature. For this reason, withdrawal of the §103(a) rejection of claim 7 is respectfully requested.

New claim 85 is added and further defines that the determining of the luminance and area ratio occurs frame by frame. Applicants earnestly solicit allowance of new claim 85 based on the features recited in this claim, and also for the reasons recited above with respect to the rejection of independent claim 1.

For all of the foregoing reasons, Applicants submit that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

If a Petition under 37 C.F.R. §1.136(a) for an extension of time for response is required to make the attached response timely, it is hereby petitioned under 37 C.F.R. §1.136(a) for an extension of time for response in the above-identified application for the period required to make the attached response timely. The Commissioner is hereby authorized to charge any additional fees which may be required to this Application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 07-2069.

Respectfully submitted,
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